Title (en)

GLASS FOR HIGH AND FLAT GAIN 1.55 $g(m)m OPTICAL AMPLIFIERS

Title (de)

GLAS MIT HOHEM UND FLACHEM VERSTÄRKUNGSFAKTOR FÜR OPTISCHE VERSTÄRKER BEI 1,55 MIKROMETER

Title (fr)

VERRE POUR AMPLIFICATEURS OPTIQUES 1,55 $g(m)m A GAIN LINEAIRE ELEVE

Publication

**EP 1010220 A4 20010704 (EN)**

Application

**EP 98943193 A 19980812**

Priority

- FR 9711054 A 19970905
- US 9816791 W 19980812

Abstract (en)

[origin: FR2768143A1] The invention relates to a family of erbium-doped fluorophosphate glasses for use in optical signal amplification. The composition, based on 100 parts by weight, is constituted by: P2O5 15-40, A12O3 0-5, MgO 0-9, CaO 0-9, SrO 0-9, BaO 0-45, AlF3 5-25, MgF2 0-10, CaF2 0-25, SrF2 0-25, BaF2 0-20, KHF2 0-2, K2TiF6 0-2, with up to 10 parts by weight of erbium oxide. The glasses according to the present invention exhibit a high gain and a very flat spectrum over the 1550 nm bandwidth, as compared to the glasses of the figure. These glass compositions are particularly well suited for use in fiber or planar optical amplification in WDM and similar applications.

IPC 1-7

**C03C 3/247**; C03C 4/00; H01S 3/06

IPC 8 full level

**C03C 3/247** (2006.01); **C03C 4/00** (2006.01); **C03C 4/12** (2006.01); **H01S 3/06** (2006.01); **H01S 3/067** (2006.01); **H01S 3/17** (2006.01); H01S 3/16 (2006.01)

CPC (source: EP KR)

**C03C 3/247** (2013.01 - EP KR); **C03C 4/0071** (2013.01 - EP KR); **C03C 4/12** (2013.01 - EP KR); **H01S 3/06708** (2013.01 - EP KR); **H01S 3/06716** (2013.01 - EP); **H01S 3/1608** (2013.01 - KR); **H01S 3/1618** (2013.01 - KR); **H01S 3/17** (2013.01 - EP); **H01S 3/173** (2013.01 - KR); H01S 3/1608 (2013.01 - EP); H01S 3/1618 (2013.01 - EP); H01S 3/173 (2013.01 - EP); H01S 3/175 (2013.01 - EP); H01S 2301/04 (2013.01 - EP)

Citation (search report)

- [X] US 4806138 A 19890221 - MIURA KIYOTAKA [JP], et al
- [X] FR 1527101 A 19680531
- [A] US 5313477 A 19940517 - ESTEROWITZ LEON [US], et al
- [A] US 5084880 A 19920128 - ESTEROWITZ LEON [US], et al
- [A] EP 0371716 A2 19900606 - SUMITA OPTICAL GLASS [JP]
- [A] US 4962995 A 19901016 - ANDREWS LEONARD J [US], et al
- [A] FR 2381724 A1 19780922 - HOYA CORP [JP]
- [A] TACCHEO S ET AL, APPLIED PHYSICS LETTERS, vol. 68, no. 19, 6 May 1996 (1996-05-06), pages 2621 - 2623, XP000588305
- [A] HUTCHINSON J A ET AL, APPLIED PHYSICS LETTERS, vol. 60, no. 12, 23 March 1992 (1992-03-23), pages 1424 - 1426, XP000273280
- See references of WO 9913541A1

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

**FR 2768143 A1 19990312**; **FR 2768143 B1 19991203**; AU 734647 B2 20010621; AU 9104098 A 19990329; BR 9811411 A 20000822; CA 2297331 A1 19990318; CN 1269915 A 20001011; EP 1010220 A1 20000621; EP 1010220 A4 20010704; JP 2001516958 A 20011002; KR 20010023640 A 20010326; WO 9913541 A1 19990318

DOCDB simple family (application)

**FR 9711054 A 19970905**; AU 9104098 A 19980812; BR 9811411 A 19980912; CA 2297331 A 19980812; CN 98808791 A 19980812; EP 98943193 A 19980812; JP 2000511219 A 19980812; KR 20007002291 A 20000303; US 9816791 W 19980812